201.5 - Electrolytic Conductivity (liquid form)

These SRMs are for calibrating and standardizing conductivity cells and meters used in water purity determinations and in clinical applications. SRM 3190 is an aqueous solution of hydrochloric acid; SRMs 3191 through 3193 are solutions of high purity potassium chloride in deionized water in equilibrium with atmospheric carbon dioxide. SRMs 3198 and 3199 are solutions of potassium chloride in a mixture of n-propanol and deionized water.

Conductivity SRMs 3194 (10000 μ S/cm), 3195 (100000 μ S/cm), and 3196 (20000 μ S/cm) have been discontinued. Users can prepare their own molality-based NIST traceable primary reference materials at conductivity levels of 1409.33 μ S/cm, 108621 μ S/cm, and 12825.7 μ S/cm, respectively by starting with any issuance of SRM 999 Potassium Chloride. See this: Reference Link for the preparation details.

Technical Contact: kenneth.pratt@nist.gov

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	3190	3191	3192	3193	3198	3199
Description	Aqueous Electrolytic Conductivity (25 µS/cm)	Aqueous Electrolytic Conductivity	Aqueous Electrolytic Conductivity (500 μS/cm)	Aqueous Electrolytic Conductivity (1000 µS/cm)	Aqueous Electrolytic Conductivity (5 μS/cm)	Aqueous Electrolytic Conductivity (15 µS/cm)
Unit of Issue	(500 mL)	(500 mL)	(8x50 mL)	(8x50 mL)	(500 mL)	(500 mL)
	0.5	400	500	4000		45
Nominal Conductivity (μS/cm)	25	100	500	1000	5	15